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| APPLICATION NO.          | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------|-------------|----------------------|---------------------|------------------|
| 09/929,794               | 08/14/2001  | Ville Ollikainen     | 0127US-VTT          | 2562             |
| 23521                    | 7590        | 10/19/2005           | EXAMINER            |                  |
| SALTAMAR INNOVATIONS     |             |                      | WILDER, PETER C     |                  |
| 30 FERN LANE             |             |                      | ART UNIT            |                  |
| SOUTH PORTLAND, ME 04106 |             |                      | PAPER NUMBER        |                  |

2614

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/929,794             | OLLIKAINEN ET AL.   |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Peter C. Wilder        | 2614                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/14/01</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: page 8 paragraph 7 references Receivers 1,2, and 3 and servers 1 and 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: figure 4 contains reference number 45 not mentioned in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 4, 8-17, 19-21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Carr et al. (U.S. 5608446 B1).

Referring to claim 1, Carr teaches a system for implementing multicast service over a unidirectional signal distribution system having a transmission system adapted to receive multicast packets and transmit said packets using the distribution system, operating in conjunction with an IP multicast router adapted to send multicast packets on demand, and in conjunction with an upstream network capable of transferring data from a subscriber facility (Figure 1 element 18), the system comprising:

an order server in communication with said multicast router (Figure 1 elements 48 and 52; The examiner views elements 48 and 52 combined as a server in communication with router element 42; Column 4 lines 12-16 teaches how the two elements are combined; Column 13 lines 46-67 and Column 14 lines 1-5), and in

communication with said upstream network for receiving user input (Column 3 lines 10-18; Figure 1 shows elements 48 and 52 in element 18 which user requests flow through via elements 26), said order server adapted to receive at least one user request for multicast reception (Column 8 lines 56-67 and Column 9 lines 1-16 teaches a user requesting data);

said order server adapted to indicate to said multicast router to transmit multicast packets to said transmission system, responsive to at least one user request (Column 9 lines 9-17 teaches the control processor controlling the router to forward the data to the cable distribution head-end and eventually to the customer equipment 20; Column 9 lines 18-22 teaches many subscribers receiving data which is a multicasting);

for transmission of said multicast packets by said unidirectional distribution system (Column 14 lines 6-14; Figure 1 shows from the cable distribution head end the signal can only go one way, elements 36).

Referring to claim 3, corresponding to claim 1, Carr teaches wherein said order server is adapted to receive said multicast packets and route them to said transmission system (Column 9 lines 9-17 teaches the control processor controlling the router to forward the data to the cable distribution head-end and eventually to the customer equipment 20 which is a transmission system).

Referring to claim 4, corresponding to claim 1, Carr teaches wherein said order server is adapted to indicate to the multicast server via an intermediate computer (Figure 1 element 42 the router is viewed as a intermediate computer).

Referring to claim 8, corresponding to claim 1, Carr teaches the system of claim 1 wherein said unidirectional distribution system comprises a digital television distribution system (Column 3 lines 39-44 teaches multiplexing signals onto a 6 MHz channels which means the system is a digital television system).

Referring to claim 9, corresponding to claim 1, Carr teaches the system of claim 1 wherein said order server is adapted to communicate with a transmission system that is connected to a different sub-networks (Figure 1 teaches two sub-networks elements 30A and 30N from element 18).

Referring to claim 10, corresponding to claim 1, Carr teaches the system of claim 1, wherein said order server is adapted to communicate with said transmission system using a virtual private network (Figure 1 shows a transmission system element 30N connected to element 18 by element 28N, the examiner views element 28A – element 28N as a virtual private network between the cable head end and split channel bridging unit which contains the order server).

Referring to claim 11, corresponding to claim 1, Carr teaches the system of claim 1 wherein said order server is connected to a first sub-network (Figure 1 element 24 is seen as a sub-network connected to element 48 and 52), and adapted to connect to a multicast router that is connected to a second sub network (Figure 1 element 48 and 52 the order server are connect to the multicast router that is connected to element 14 the second sub-network).

Referring to claim 12, corresponding to claim 1, Carr teaches the system of claim 1 wherein said transmission system is connected to a first sub network and the multicast router is connected to a second sub-network (Figure 1 shows two sub-networks Cable head ends 30A and 30N).

Referring to claim 13, corresponding to claim 1, Carr teaches the system of claim 1 further comprising a virtual private network connecting said transmission system and multicast router (Figure 1 shows a transmission system element 30N connected to element 18 by element 28N, the examiner views element 28A – element 28N as a virtual private network between the cable head end and split channel bridging unit which contains the router).

Referring to claim 14, corresponding to claim 1, the system of claim 1 wherein said order server is integrated into said transmission system (Figure 1 shows the order

server elements 48 and 52 as being connected to the router element 42 to which is part of the transmission system).

Referring to claim 15, corresponding to claim 1, Carr teaches the system of claim 1 wherein the functionality of said order server is divided between a plurality of servers (Figure 6 teaches an embodiment of the order server element 48 in Figure 1, Figure 2 element 90 is one server a Sun work station Column 13 lines 55-56; Figure 2 element 96 is viewed by the examiner to be another server; element 96 serves out routing information that is essential for the operation of the transmission system Column 5 lines 36-43).

Referring to claim 16, corresponding to claim 1, Carr teaches a system of claim 1 wherein said upstream network is selected from a group consisting of ISDN network, PSTN network, wired network and wireless network, or a combination thereof (Column 3 lines 10-16).

Referring to claim 17, Carr teaches a method for multicast transmission via a unidirectional distribution network having a transmission system, and operating in conjunction with a multicast router adapted to send multicast packets of at least one multicast service on demand, the method further operating in conjunction with an upstream network adapted to transfer data from a subscriber facility (Figure 1 teaches a



multicast system and Column 9 lines 18-22 teaches multicasting since many subscribers receive information), the method comprising the steps of:

providing an order server adapted to request transmission of said multicast packets from said multicast router (Column 4 lines 12-21 teaches the control process element 48 in Figure 1, (which the examiner views as an "order server,") which communicates to the router element 42 to allow data to be transmitted through);

allowing a user to deliver orders to said order server from a subscriber via said upstream network (Column 3 lines 10-16 and Figure 1 teaches an upstream network to request information), said orders comprise at least a request for transmission of a multicast service (Column 8 lines 56-67 and Column 9 lines 1-2 teaches a user requesting information from element 10A, and having the data delivered to element 48 in Figure 1 the "order server;" Column 8 line 67 and Column 9 lines 1-9 and Figure 1 teaches element 48 sends data to headend element 30 which is then sent to many subscribers elements 36, this is a multicast service);

receiving multicast packets comprising said multicast service, from said multicast router responsive to said user orders (Column 9 lines 9-17);

transmitting data corresponding to said multicast service via said unidirectional network (Column 14 lines 6-14; Figure 1 shows from the cable distribution head end the signal can only go one way, elements 36).

Referring to claim 19, corresponding to claim 17, Carr teaches the method of claim 17 further comprising the step of routing said multicast packets to a television

provider network via the network connected to said order server (Figure 1 teaches element 30N which a cable distribution Head end which is part of the network; Column 9 lines 9-18 teaches using the cable headend).

Referring to claim 20, corresponding to claim 17, see rejection of claim 8

Referring to claim 21, corresponding to claim 17, see rejection of claim 16.

Referring to claim 22, corresponding to claim 17 Carr teaches further comprising the step of translating Internet Protocol (IP) addresses contained within said multicast packets, into Conditional Access (CA) (Column 9 lines 22-25 teaches that only one user can access the data, so the address has to be translated to conditional access or everyone would have access to the information).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (U.S. 5608446 B1) in view of Mimura et al. (U.S. 6557031 B1).

Referring to claim 2, Carr teaches all the limitations in claim 1, but fails to teach wherein said order server is constructed to receive said user requests from at least one set top box located at the user premises and coupled to said upstream network.

Mimura teaches wherein said order server is constructed to receive said user requests from at least one set top box located at the user premises and coupled to said upstream network (Column 14 lines 14-27 and Figure 26 teach a set top box requesting a program via an upstream network).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the signal distribution system function/device of Carr using set-top box to request a channel function/device of Minura for the purpose of having the set-top box receive and reproduce desired video data (Column 14 lines 3-7 Mimura)

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (U.S. 5608446 B1) in view of Lin et al. (U.S. 6381748 B1).

Referring to claim 5, Carr teaches all the limitation in claim 1, but fails to teach wherein said order server further comprises a table adapted receive entries therein, said entries comprising at least one multicast service which at least one user desires to receive, and wherein said entry is removable from said table, and wherein said table is used to indicate to said multicast router to forward said at least one multicast service.

Lin teaches wherein said order server further comprises a table adapted receive entries therein (Figure 4 elements 414 are entries of user actions; Column 5 lines 19-23), said entries comprising at least one multicast service which at least one user desires to receive (Column 4 lines 5-15 teaches a server, (element 110 in Figure 2), managing a user requests of being able to receive television information and user request signals; and Column 5 lines 17-25 teaches the table recording the information; Figure 1 teaches more than one user receiving a signal sent from the video server so the service is multicast; Column 4 lines 32-33 teaches multiple users), and wherein said entry is removable from said table (Column 5 lines 25-26), and wherein said table is used to indicate to said multicast router to forward said at least one multicast service (This data is in the table as taught in Column 5 lines 19-23 so placing the table in the server of Carr would instruct the router when to transmit data).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the signal distribution system function/device of Carr using tables to store user requests function/device of Lin for the purpose of retrieving and retransmitting data processing network information in response to a user selection request (Column 2 lines 4-7 Lin).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (U.S. 5608446 B1) in view of Hendricks (U.S. 6052554 B1).

Referring to claim 6, Carr teaches all the limitations in claims 1 and 3, but fails to teach further comprising a query module, adapted to report which multicast services were requested by users.

Hendricks teaches further comprising a query module, adapted to report which multicast services were requested by users (Column 9 lines 64-67 and Column 10 lines 1-5 teach the concept of polling which the examiner equates to querying, of programs watched on a set top terminal).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the signal distribution system function/device of Carr using the polling of set-top boxes function/device of Hendricks (554) for the purpose of providing a system capable of monitoring account and billing information for the hundreds of program offerings (Column 4 lines 41-43 Hendricks (554)).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (U.S. 5608446 B1) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Hendricks et al. (U.S. 6160989 B1).

Referring to claim 7, Carr teaches all the limitations in claims 1 and 3, but fails to teach wherein said order server is further adapted to remove an entry from said table responsive to a user request transmitted via said upstream network.

Hendricks (853) and Hendricks (989) teach an order server is further adapted to remove an entry from said table responsive to a user request transmitted via said upstream network (Hendricks (853) teaches being able to cancel a subscription to a program on Column 40 lines 46-48; the upstream network is taught in Figure 1 between elements 900, 220,214 and the Terrestrial Link to element 202; Hendricks (989) teaches in Figure 12 element 332 a table of information including subscriptions to cable services of each user, Column 29 lines 52-60).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the signal distribution system function/device of Carr using the subscription cancel function/device of Hendricks (853) further using the users subscription table logging function/device of Hendricks (989) for the purpose of providing a network controller capable of targeting specific video/audio to specific viewers (Column 5 lines 30-32 Hendricks (989)).

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (U.S. 5608446 B1) in view of Hendricks et al. (U.S. 5734853 B1) further in view of Rao (U.S. 5940738 B1).

Referring to claim 17, Carr teaches all the limitations in claim 17, but fails to teach further comprising the step of allowing a user to deliver termination order for said multicast service, and terminating the transmission of said multicast service when all orders therefore have been so terminated.

Hendricks (738) teaches the step of allowing a user to deliver termination order for said multicast service (Column 40 lines 46-48), but fails to teach terminating the transmission of said multicast service when all orders therefore have been so terminated.

Rao teaches terminating the transmission of said multicast service when all orders therefore have been so terminated (Column 20 lines 30-42 teaches stopping the transmission of a channel if no other users are requesting the channel).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the signal distribution system function/device of Carr using the subscription cancellation function/device of Hendricks (738), further using with the signal termination function/device of Rao for the purpose of allowing additional services to opportunistically exploit the extra bandwidth (Column 4 lines 16-17 Rao).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. Wilder whose telephone number is 571-272-2826. The examiner can normally be reached on 8 AM - 4PM Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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